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Unresolved issues and future work

1. Methodological questions

1.1 Scope and coverage:
To what extent should environment statistics (land use, emissions, natural resource indicators) be incorporated in an accounting framework? Are stress/activity-impact matrices in land use statistics, access to water indicators, or industrial emission tables 'accounts' or 'balances'? What is the role of environment statistics frameworks like the UN's stress-response framework (FDES)?

1.2 Valuation:

- Should damage/welfare valuation be part of the SEEA (inconsistencies with SNA's cost/ output-price valuation)? Perhaps we have a link to the FDES via the 'cost caused' and 'borne' notions of the original SEEA.
- Marginal vs average maintenance costing for public environmental goods use and depreciation: average costing might be more appropriate in the absence of demand functions for environmental services, especially when demand is replaced by an environmental standard at a point below or above the optimal use of an environmental good.

1.3 Social accounting:
Can and should human and social capital be incorporated in the SEEA – for assessing a broader sustainability concept?

1.4 Environmental debt accounting:
Concept and definition needs still to be elaborated (environmental deterioration compared to a 'pristine' situation – Hueting's SNI)? Relationship with financial debt?

1.5 Micro-macro link (MML):

- Is there a need for harmonizing corporate and national environmental accounting? We could possibly link up with the DESA programme on environmental management accounting (EMA) and other international initiatives such as ISO 14000.
- How can we monitor corporate environmental accountability?

2. Analysis and policy use

2.1 Management vs policy uses:

- Disaggregated indicators (e.g. data on particular natural resources and residuals) for the management of particular natural resources vs national and sectoral aggregates (e.g. of total material flows and/or environmentally adjusted monetary indicators) for environmental and sustainability policies
- Setting of economic policy instruments (e.g. eco-tax) according to environmental cost

(externalities), level of emissions, or resource inputs?

- Portfolio analysis of produced and non-produced/natural wealth for exploring development prospects.

2.2 Strong vs weak sustainability in environmental cost and material flow accounting:

- The meaning of natural capital consumption and capital maintenance in aggregate indicators of income and output for assessing the sustainability of economic growth
- Substitutability vs complementarity: the role of 'critical' capital
- Material throughput (pressures on carrying capacities) for assessing the sustainability of economic performance: dematerialisation by a certain factor – an alternative (physical) sustainability concept?

2.3 Monitoring ecoefficiency and sufficiency:
Resource productivity and material intensity of at micro-(corporations, households) and macro-levels (national economy, economic sectors) to attain technology-oriented ecoefficiency in production. Sufficiency in consumption (lifestyles) to deal with rebound effects from resource savings. Accounting for the effects of changes in consumption and production patterns.

2.4 Assessing environmental equity:
Inter-generational, intra- and international: environmental debt, distribution of environmental impacts/ cost. Should these welfare effects be part of the SEEA, e.g. by means of social discounting of future natural asset use? Is this the main link to sustainable development?

2.5 Environmental protection expenditures:
Efficiency of environmental protection and significance of the 'environmental industry'.

2.6 Accounting vs modeling:
Policy use of environmentally adjusted (ex-post) vs 'greened' (modeled for compliance with environmental standards) indicators. Are the former the appropriate inputs into the latter, e.g. in hybrid NAMEA-based models? What do decision makers prefer/use?

3. Future work

3.1 Working groups on unresolved methodological issues: see point 1, above.

3.2 Accounting guidelines on selected topics: particular natural resources, residuals, economic sectors (current focus to be continued?).

3.3 Regional (sub-national) accounting: e.g. river basins, eco-region (for community-oriented eco-development), provinces, states. Need for linking regional and national accounts? Policy use?

3.4 Country projects: test/pilot studies by London Group members; support for developing and transition countries.

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3.5 Global study on key SEEA indicators: for monitoring regional hotspots and country rankings

3.6 Handbook on policy use: similar to SNA Handbook?

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